Illuminator User Guide

Cube Illuminator Range

Models covered by this manual:

UFO CUBE DMX
UFO CUBE DMX-R

Please read this manual fully before installing, operating or performing maintenance on the illuminator unit.

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INTRODUCTION

Thank you for purchasing this UFO Illuminator.

Please read these instructions fully before connecting your unit to the electrical supply, and keep them for future reference.

The UFO Cube illuminator is suitable for use with either glass or PMMA fiber-optic harness

The Cube is powered by a 100-240 VAC remote desktop power supply unit.

IMPORTANT

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

INSTALLATION INSTRUCTIONS

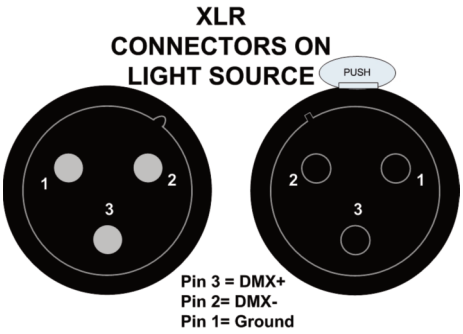
POWER SUPPLY REQUIREMENTS

The LED Illuminator is powered from a multifunction, multi-voltage, desk top Power Supply Unit. Remove the 24V Desk Top PSU from its box. This PSU is an IEC input device catering for UK, European and USA mains supplies using the relevant power cord.

CONNECTIONS

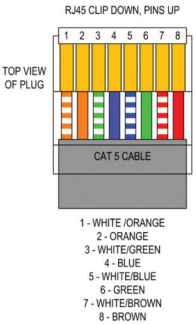
There are 3 connections required – the fiber port, the mains supply cable and the DMX control cable. The fiber port should be connected first. Connect and secure the fiber optic connector into the green collar and secure using the M5 locking screw.

Connect the IEC power cord into the Desk Top PSU and plug the mains plug into the electrical supply socket. Switch on power. The LED Indicator will illuminate and the illuminator is ready for use. If no light is produced consult the TROUBLESHOOTING section.
For DMX control connect up the DMX control cables to the XLR sockets or the RJ45 sockets on the side of the Illuminator. The pin out details for the plugs are shown below.



RJ45 CONNECTIONS

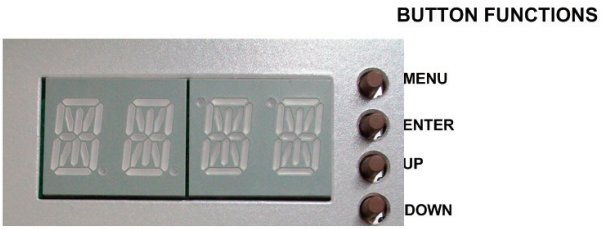
Pin No	1	2	3	4	5	6	7	8
Color	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown
Function	DMX+ (HOT)	DMX- (COLD)	Spare	Spare	Spare	Spare	Ground	Ground
DMX-XLR equivalent	Pin 3	Pin 2					Pin 1	Pin 1



Note:
It is recommended that a 120ohm terminating resistor be connected across DMX+ and DMX- on the last illuminator on the DMX universe or cable run

OPERATION

Rear Panel Controls



MENU FUNCTIONS – repeated pressing the MENU button cycles the control through the following modes

ADDRESS "ADDR"	Manually select the DMX address using up and down buttons. Press ENTER when selected
MODE "MODE"	Select either MASTER, DMX or REMOTE using up and down buttons. Press ENTER when selected. In MASTER the unit will control another unit set to DMX
PROGRAMME "PROG"	Manually select a range of standalone programmes. Press ENTER when selected
TIME "TIME"	Select the length of time between colour changes. Press ENTER when selected

The left hand display shows a rotating line when DMX data is received.

Standalone Master Mode

In this mode the illuminator (set to Master) can be used in two ways – either as a single independent illuminator or in a Master/Slave configuration with several illuminators connected together using DMX cables. The Slave (set to DMX) will mimic whatever standalone programme the Master Illuminator is set to. All menu functions are available in Master mode.

Standalone Remote Mode

Again in this mode the illuminator (set to Remote) can be used in two ways – either as a single independent illuminator or in a Master/Slave configuration with several illuminators connected together using DMX cables. The Master color sequences are controlled by a RF remote control and again the Slave will mimic the Master Illuminator

OPERATION

DMX Mode

In this mode the Illuminator (set to DMX) can be controlled either by another Cube in Master mode or by a DMX controller.

Cube Remote Controller

Description	Details	Comments
Power	2 X AAA batteries	
Range	30 metres	Measured in free space, may be attenuated by obstructions or other RF devices
Frequency	2.4GHz	Approved for use in UK, Europe and USA

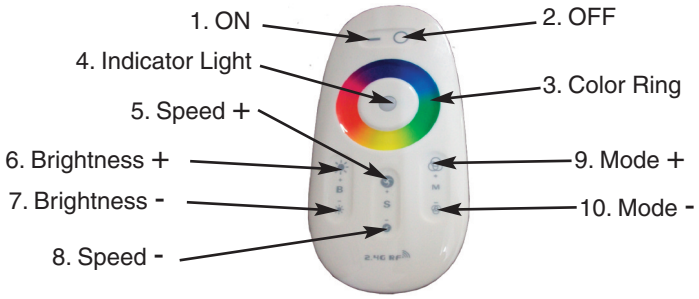
Batteries – With The LED Illuminator powered up as described above, remove the rear cover on Remote Controller. **Taking care not to touch any of the front cover buttons,** insert the batteries. If you touch the remote control buttons when inserting the batteries it **WILL** effect the operation of your Remote Control. If you do accidentally touch any of the buttons, remove the batteries and start again.Once the batteries are inserted do not use the Remote Control for 3 seconds.

DO NOT TOUCH THE BUTTONS WHILST INSERTING BATTERIES

Test remote control as detailed on the following page. The Remote Controller is “matched” to the Illuminator at the factory. If the Remote Controller is not matched or and additional or replacement Remote Controller is required carry out the “Matching Remote to Illuminator” instructions in the following text. If a Remote Controller is to be removed from control of a Illuminator carry out the “Unmatching Remote to Illuminator” instructions in the following text.

OPERATION

Remote Operation



No	Description	Function
01	Button	Power ON
02	Button	Power OFF
03	Color Ring	Touch control all colors (White not available)
04	Indicator	Indicates Controller active when buttons pressed
05	Button	Increase color cycle speed
06	Button	Increase Brightness
07	Button	Decrease Brightness
08	Button	Decrease Color cycle speed
09	Button	Mode + Step up through Color cycle programmes
10	Button	Mode - Step down through Color cycle programmes

REMOTE CONTROLLER OPERATION

Matching Remote to Illuminator – Remove the power plug from the rear of the Illuminator, then replace and once the Indicator Light (4.) lights, touch button 5 within 3 seconds, the Illuminator will “blink” twice slowly indicating that the Remote Controller is matched to the Illuminator.

Unmatching Remote from Illuminator - Remove the power plug from the rear of the Illuminator, then replace and once the Indicator Light (4.) lights, touch and hold button 5 within 3 seconds and the Illuminator will “blink” 9 times indicating that the Remote Controller is unmatched from the Illuminator.

OPERATION

Remote Controller Modes and Functions

No	Mode	Brightness	Speed	Comment
1	Static White	Adjustable	Not Adjustable	To revert to 1 (Static White) at any time touch Color Ring then Mode+
2	White and Colors mixed	Adjustable	Not Adjustable	Color Ring control – brightness adjust Color only, not White. To revert to 2 (Color Ring) at any time touch color ring
3	All Colors fade change	Adjustable	Adjustable	No White
4	RGBW fade change	Adjustable	Adjustable	Red, Green, Blue & White
5	RGBW snap change	Adjustable	Adjustable	Red, Green, Blue & White
6	7 Colors snap change	Adjustable	Adjustable	White and Colors mixed
7	2 Colors snap change	Adjustable	Adjustable	Red & White
8	2 Colors snap change	Adjustable	Adjustable	Blue & White
9	2 Colors snap change	Adjustable	Adjustable	Green & White
10	1 Color Flash	Adjustable	Adjustable	Red
11	1 Color Flash	Adjustable	Adjustable	Blue
12	1 Color Flash	Adjustable	Adjustable	Green
13	1 Color Flash	Adjustable	Adjustable	White
14	All Colors snap & fade	Adjustable	Adjustable	Random

Mode Buttons – This is not a loop, i.e. touching the **Mode+** button will not eventually bring you back to Mode 1. To revert to Mode 1, either touch **Mode –** button repeatedly to step back up through the Mode numbers, or touch **Color Ring** then **Mode+**
Color Ring –The Color Ring can be used to select individual colors by touching the ring and sliding your finger around the ring,
Brightness – brightness can be increased or reduced in any mode using buttons 6 & 7
Cycle Speed – speed of color cycling in Modes 3 to 14 can be adjusted using buttons 5 & 8

OPERATION

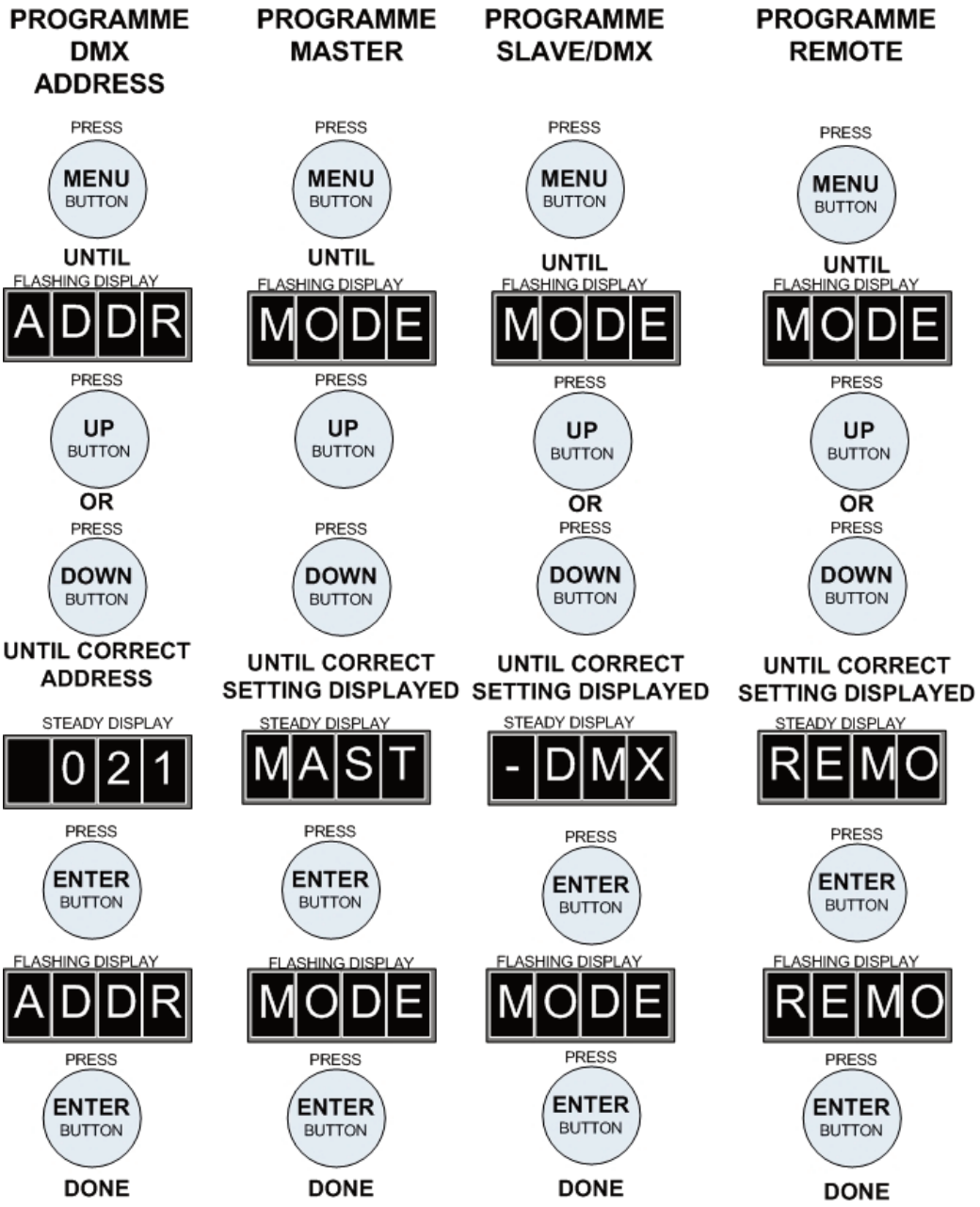
Remote Range Walk Test

Once the Illuminator is fully installed carry out a complete range walk test and record the range in the table below. This information is essential for maintenance purposes to determine if the range/sensitivity is reducing and also to record dead areas within the Remote Controller's range due to RF obstructions and/or RF interference.

NOTE: Where a Illuminator has more than one Remote Control, reduction in operating range may be experienced when both (or multiple) Remote Controls are used simultaneously.

Description	Date	Max Range	
Controller 1			
Controller 2			
Controller 3			
Dead Areas			

PROGRAMMING



PROGRAMMING

STANDALONE PROGRAMMES

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY

PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL REQUIRED PROGRAMME IS DISPLAYED
STEADY DISPLAY

PRESS
ENTER BUTTON
FLASHING DISPLAY

PRESS
ENTER BUTTON
DONE

DISPLAY TIMER

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY

PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL REQUIRED PROGRAMME IS DISPLAYED
STEADY DISPLAY

PRESS
ENTER BUTTON
FLASHING DISPLAY

PRESS
ENTER BUTTON
DONE

STANDALONE OPERATION

Prog.	Function	Effect
P01	Display Color 1	White
P02	Display Color 2	Red
P03	Display Color 3	Green
P04	Display Color 4	Blue
P05	Display Color 5	Yellow
P06	Display Color 6	Cyan
P07	Display Color 7	Magenta
P08	Snap color change between colors 1,2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P09	Snap color change between colors 2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P10	Snap color change between colors 1,2,3,4	Display color for adjustable time (display timer) and then snap to next color
P11	Fade color change between colors 1,2,3,4,5,6,7	Display color for adjustable time (display timer) and then fade slowly to next color
P12	Fade color change between colors 2,3,4,5,6,7	Display color for adjustable time (display timer) and then fade slowly to next color
P13	Fade color change between colors 1,2,3,4	Display color for adjustable time (display timer) and then fade slowly to next color

DMX OPERATION

DMX Channel Operation

The Cube DMX occupies 5 DMX channels as detailed below.

Channel	Function	Values
1	Red	0-225
2	Green	0-225
3	Blue	0-225
4	White	0-225
5	LED and fan	0-250 On, 251-255 Off

MAINTENANCE

Please Note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when. This MUST be dated for warranty purposes.

Date	Maintenance Undertaken

TROUBLESHOOTING

Problem	Probable Causes	Remedy
Illuminator dead – LED indicator on desk top PSU not illuminated	Mains supply off	Check supply and reinstate
	Loose mains plug	Check plugs
	PSU faulty	Replace PSU
Illuminator dead – LED indicator on desk top PSU illuminated, but LCD display on Illuminator not illuminated	Loose DC plug	Check plug
	PSU faulty	Check PSU output – Replace PSU
	Illuminator Faulty	Replace Illuminator
Illuminator no light output – LED, but LCD display on Illuminator is illuminated	If programme Mode is set to “REMO”, illuminator may have been switched off using RF remote control	Switch array on using RF remote control
	LED array/driver faulty	Replace Illuminator
RF remote controller range reduced	Remote batteries failing	Replace batteries as per User Guide
	Another RF device causing interference	Check for another RF device in same area
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failing	Replace remote
	Illuminator receiver failing	Replace Illuminator
Illuminator won’t respond to RF remote controller	Illuminator not in Remote mode	Check mode programming and set to “REMO”
	Remote batteries failed	Replace batteries as per User Guide
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failed	Replace remote
	Illuminator receiver failed	Replace Illuminator
Not responding to DMX – no rotating symbol on LCD display	Illuminator not in “DMX”mode	Check mode programming and set to “DMX”
	DMX address incorrectly set	Change address on illuminator or DMX controller
	No DMX signal from controller	Check DMX controller for correct setting
	Wiring fault on DMX cables/connections	Check cable connections and repair as necessary
	DMX driver failure	Change Illuminator
Not fully responding to DMX – some but not all colors controllable, no rotating symbol on LCD display	Illuminator address out of range – not 5 available channels on DMX controller	Change address on illuminator or DMX controller to make 5 channels available
Not responding to DMX – no light output, rotating symbol on LCD display	Incorrect address set on illuminator or controller	Check addresses
	No values set in DMX channel	Check DMX controller channel values
	Channel 5 value high (251-255) switching off the array	Reduce channel 5 value to <251
	LED array/driver failed	Change illuminator
Poor light output on fiber	Unit needs cleaning	Carefully clean the LED lens with a dry cloth Clean fiber common end
	Fiber port connector not plugged in correctly	Ensure plugged in correctly and secured with locking screw

TECHNICAL SPECIFICATIONS

Description	Details
Port connector size	30mm Diameter
Fiber type	Glass/PMMA
Mains Supply Voltage	100-240V AC, 50-60 Hz.1.8A
Input from mains	0.2A max
PSU Output	24V 0.75A
LED Power	35W
Power Connection	2.1 X 5.5 X 12mm
Min Ambient Temperature	14^{o}F (-10^{o}C)
Max Ambient Temperature	104^{o}F ($+40^{o}$C)
Operating Environment	Indoor/Dry
Fan	60mm 12V Crossflow
LED Type/Model	RGBW
LED Life	50,000 hours
Control Functionality	Manual, RF Remote & DMX
DMX	User Addressable 5 channels (0-255)
RF Remote Frequency	2.4GHz
RF Remote Range	98’ (30m) (depending on environment)
RF Remote Power	2 X AAA batteries
PSU Type	Desk top with standard IEC power cord
Material	Aluminum
Color	Grey
Size	(L) 4.3” (110mm) - (W) 4.3” (110mm) - (H) 3.7” (95mm)
Weight	1.3lb (0.6kg)

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